

Exhibit No.: Witness: Type of Exhibit: Issue: Case No.:

Michael Gorman Surrebuttal Testimony Return on Equity Sponsoring Parties: Missouri Industrial Energy Consumers ER-2007-0002

#### **BEFORE THE PUBLIC SERVICE COMMISSION** OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the **Company's Missouri Service Area** 

Case No. ER-2007-0002

Surrebuttal Testimony and Schedules of

Michael Gorman

On Behalf of

**Missouri Industrial Energy Consumers** 

February 27, 2007



BRUBAKER & ASSOCIATES, INC. ST. LOUIS, MO 63141-2000

Project 8632

- Case No. <u>206</u>-0002

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Case No. ER-2007-0002

STATE OF MISSOURI

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COUNTY OF ST. LOUIS

#### Affidavit of Michael Gorman

Michael Gorman, being first duly sworn, on his oath states:

1. My name is Michael Gorman. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes are my surrebuttal testimony and schedules, which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2007-0002.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things they purport to show.

Michael Gorman

Subscribed and sworn to before this 27th day of February 2007.

CAROL SCHULZ Notary Public - Notary Sea STATE OF MISSOURJ St. Louis County My Commission Expires: Feb. 26, 2008

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My Commission Expires February 26, 2008.

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Case No. ER-2007-0002

#### Surrebuttal Testimony of Michael Gorman

#### 1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 2 A My name is Michael Gorman and my business address is 1215 Fern Ridge Parkway,
- 3 Suite 208, St. Louis, MO 63141-2000.
- 4 Q ARE YOU THE SAME MICHAEL GORMAN WHO HAS PREVIOUSLY FILED 5 TESTIMONY IN THIS PROCEEDING?
- 6 A Yes. I have previously filed direct testimony on return on equity issues.

#### 7 Q ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN

- 8 THAT PRIOR TESTIMONY?
- 9 A Yes. This information is included in Appendix A to my direct testimony on return on
  10 equity issues.

#### 11 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

- 12 A I am appearing on behalf of the Missouri Industrial Energy Consumers (MIEC).
- Member companies purchase substantial amounts of electricity from AmerenUE
  (AmerenUE or Company).

Michael Gorman Surrebuttal Page 1

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#### WHAT IS THE SUBJECT OF YOUR TESTIMONY?

A I will respond to the rebuttal testimony of AmerenUE witnesses Ms. Kathleen C.
McShane, Mr. Lee Nickloy, and Dr. James H. Vander Weide.

#### 4 Q PLEASE SUMMARIZE YOUR FINDINGS IN YOUR SURREBUTTAL TESTIMONY.

In my surrebuttal testimony, I respond to the arguments of AmerenUE witnesses Ms. 5 А McShane and Dr. Vander Weide. The AmerenUE witnesses' continue to support a 6 financial risk return add-on to the traditional method of estimating a return on equity 7 for utility companies using DCF and risk premium studies. The witnesses' proposed 8 financial risk equity return add-on should be rejected. These witnesses have offered 9 no new evidence in support of this unconventional return on equity add-on premium, 10 and they have failed to provide adequate response to the criticisms offered by 11 intervenor witnesses in this proceeding. This return add-on is flawed, and inflates the 12 13 return on equity that AmerenUE would be allowed to earn on its Missouri utility 14 assets.

15 I also respond to the witnesses' contention that their proxy group produces a 16 more reliable return on equity estimate than my proxy group. As shown, the witnesses' argument is a red herring. While the selection of the proxy group is 17 important, the differences between proxy groups do not produce significant 18 differentiats in DCF results as long as the models are applied reasonably and 19 20 correctly. The systematic risk factor beta, used in the CAPM return estimate, can however be impacted by the proxy group if the group contains many companies 21 which are predominantly exposed to non-regulated investment risk, such as the proxy 22 group used in particular by Dr. Vander Weide. The higher beta estimates produced 23

by the companies that are largely exposed to non-regulated investment risk is not an appropriate beta to use for AmerenUE's regulated utility operations in Missouri.

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3 Further, AmerenUE witnesses use excessive growth rates which inflate their 4 DCF return estimates. Hence, the AmerenUE witnesses' proposed return on equity 5 for AmerenUE is excessive, and a fair return on equity for AmerenUE in this 6 proceeding is around 9.8%.

7 I also take issue with AmerenUE witness Dr. Vander Weide's criticism of my reliance on both projected and current observable interest rates. Dr. Vander Weide 8 proposes to use only projected interest rates because he believes those are the rates 9 10 that will reflect AmerenUE's cost of capital during 2007, the first year rates determined in this proceeding will be in effect. I disagree. The accuracy of projected 11 12 interest rates is at best problematic. Indeed, for reasons set forth in my direct 13 testimony, current observable interest rates are just as likely a reflection of interest 14 rates that will prevail in 2007, as are projected interest rates. Again, I believe it is appropriate to recognize both projected and current interest rates in order to 15 16 reasonably capture AmerenUE's cost of capital during the period rates determined in 17 this proceeding will be in effect.

I also respond to AmerenUE witness Mr. Nickloy's testimony which suggests 18 19 that the Commission should not give consideration to S&P's financial credit rating metrics in evaluating a proposed return on equity in this proceeding. I disagree. 20 21 While the credit rating financial metrics are only a part of S&P's determination of 22 credit ratings for utility companies, it nevertheless provides meaningful information to test whether a return on equity will support a utility's credit metrics and credit rating. 23 24 This test provides useful information to assist the Commission in its determination of 25 a rate of return that is fair compensation based on today's low-capital market cost,

and also supportive of the utility's financial integrity and credit standing. As such,
 these credit rating financial metrics should be used by the Commission to evaluate
 the reasonableness of rate of return recommendations in this proceeding.

#### 4 RESPONSE TO MS. MCSHANE

# 5 Q ON PAGE 12 OF MS. MCSHANE'S REBUTTAL TESTIMONY, SHE ARGUES THAT 6 ALL INTERVENOR WITNESSES, INCLUDING YOU, ARE IMPLICITLY 7 TARGETING A MARKET VALUE TO BOOK VALUE OF EQUITY OF ONE. IS SHE 8 CORRECT?

9 A No. Ms. McShane argues that the intervener witnesses are implicitly targeting a
10 market-to-book ratio equal to 1 because we do not accept her financial risk return on
11 equity add-on adjustment of around 100 basis points. Ms. McShane's argument is
12 erroneous and is conceptually without merit.

Ms. McShane's financial risk equity return add-on is not necessary to maintain a market to book ratio greater than 1, and excluding this adjustment will not drive market price to book value. In fact, as I demonstrated in my direct testimony, utilities have maintained market to book ratios greater than 1 for about the last twenty years – see Schedule MPG-5 to my direct testimony. This market to book ratio premium has been consistently preserved without the financial risk adjustment proposed in this case by the AmerenUE witnesses.

#### 20 Q WHY DO YOU BELIEVE UTILITIES' MARKET PRICE PREMIUM TO BOOK VALUE

# 21 IS NOT THE RESULT OF RETURN ON EQUITY ADD-ONS AS PROPOSED BY 22 THE AMERENUE WITNESSES IN THIS CASE?

1 A The financial risk equity return proposed by AmerenUE witnesses Dr. Vander Weide 2 and Ms. McShane is not based on the traditional practice of estimating a utility return 3 on equity. Indeed, such adjustments are normally either explicitly rejected by 4 regulatory commissions or not accepted.

## 5 Q WHY DO YOU BELIEVE THESE EQUITY RETURN ADD-ON ADJUSTMENTS ARE 6 RELATIVELY NEW?

7 A I have been testifying on rate of return in regulatory proceedings for almost 20 years.
8 Based on my experience, this type of return on equity add-on adjustment has evolved
9 over time, but has never been widely accepted.

For example, as Staff witness Stephen Hill points out in his rebuttal at 15-20, Dr. Vander Weide only started in 2004 to include a financial risk adjustment to his recommended return on equity for utility companies. Prior to 2004, Dr. Vander Weide's recommendations were based on his DCF and risk premium studies, without add-on return premiums (Rebuttal Stephen Hill at 15). Over the 30-year period prior to 2004, Dr. Vander Weide did not include a financial risk return add-on to his recommended return on equity.

In more recent cases, Ms. McShane's proposed financial risk adjustments (or
market to book ratio adjustments) have been rejected. For example, in Ameren's
recent utility filings for all three of its Illinois utility companies, Ms. McShane's financial
risk adjustment was rejected by the Illinois Commerce Commission (ICC). In that
docket, the ICC stated:

22"Ameren argues that the authorized return on common equity needs to23be adjusted upward to maintain existing market-to-book ratios that24exceed 1.0. CUB, alternatively, argues that the existence of market-to-25book ratios exceeding 1.0 constitutes evidence that utilities are earning26returns on equity that exceed investor requirements. In the27Commission's view, these conflicting arguments demonstrate, in part,

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1 the hazards a regulator might face if it attempted to use market-to-book 2 ratios as the basis for establishing the cost of common equity. 3 Additionally, the Commission observes that CILCO, CIPS, and IP do 4 not have market traded common stock and, therefore, do not have 5 observable market-to-book ratios. Finally, the Commission observes 6 that it has repeatedly rejected arguments in favor of using market-to-7 book ratios as the basis for establishing cost of common equity. The 8 Commission rejects both of the contradictory arguments that market-to-9 book ratios should be directly used in establishing CILCO's, CIPS', and IP's cost of common equity in this proceeding." Emphasis added. (ICC 10 Docket 06-0070/06-0071/06-0072, November 21, 2006, at 141) 11

12 The standard practice by regulatory commissions is to rely on traditional 13 methods of estimating a fair return on common equity, which includes DCF and risk 14 premium studies without the "new" financial risk return add-on proposed in this case 15 by Ms. McShane and Dr. Vander Weide. This evidence clearly demonstrates that Ms. 16 McShane's argument that market prices would collapse to book value without the 17 financial risk return add-on is without merit and is inaccurate.

18QON PAGES 13 AND 14 OF MS. MCSHANE'S REBUTTAL TESTIMONY, SHE19ASSERTS THAT HER PROPOSED 100 BASIS POINT LEVERAGE ADD-ON TO20THE COST OF EQUITY WOULD NOT INCREASE A UTILITY'S STOCK PRICE21AND FURTHER INCREASE ITS MARKET-TO-BOOK RATIO. PLEASE RESPOND.

A Ms McShane's assertion that a utility's market to book ratio would not increase if regulatory commissions begin to accept her financial leverage adjustment to the authorized return on equity is wrong. The example she offers at Pages 13-14 of her testimony, while purporting to confirm her belief, actually does not address the issue to which she purportedly is responding.

Ms. McShane's example assumes the constant authorized return on book
equity of 11.5%. However, the argument is something much different. Specifically,
Ms. McShane's financial market risk adjustment is non-traditional and not a widely

accepted methodology by regulatory commissions to determine the return on equity
 for utility companies. Hence, the issue is what would happen to the market to book
 ratio between the two events.

First, the traditional method of authorizing return on equity is based on DCF and risk premium studies. Second, the valuation parameters are compared to the impact on a utility's market value if the regulatory commission began to accept the financial risk return on equity add-on proposed by Ms. McShane and Dr. Vander Weide.

9 Q PLEASE PROVIDE AN EXAMPLE THAT DEMONSTRATES THAT A UTILITY'S 10 MARKET TO BOOK RATIO WOULD INCREASE IF THE FINANCIAL RISK 11 ADJUSTMENT PROPOSED BY THE AMERENUE WITNESSES GAINS 12 ACCEPTANCE BY REGULATORY COMMISSIONS.

13 A This is shown below in Table 1. In developing Table 1, I have accepted Ms. 14 McShane's illustrative assumptions of a cost of equity of 10%, a market to book ratio 15 of 1.5 (page 13) and constant payout ratio of 52%. Under these assumptions as 16 shown under Year 1, the utility's market to book ratio would be 1.5x, with a price to 17 earnings ratio of 15x, and a dividend yield of 3.5%.

Now, let us assume that instead of an authorized return cost of equity of 10%,
the regulatory commissions begin to authorize the utility an 11.5% return on equity,
which is composed of a DCF and risk premium cost of 10.0% and financial leverage
return add-on of 1.5%.

22 Note that if everything else is held constant, increasing the authorized return 23 on equity from 10% to 11.5% would increase the utility's market to book ratio from 24 1.50x up to 1.73x. However, the utility dividend yield of 3.5% and price to earnings

ratio of 15.0x would be held constant if the dividend payout ratio remains constant as
 assumed by Ms. McShane in her example.

This is a reasonable expectation because utility stock value is based on earnings, dividends and free cash flow, <u>not book value</u>. Hence, if a utility's earning increases, all else remaining constant including the price to earnings ratio and dividend yield, the utility's market to book ratio would increase because of the increased earnings.<sup>1</sup> This is illustrated in the example in Table 1 below.

TABLE 1			
Effect on Stock Price and Market/Book Ratio With Financial Leverage ROE Add-on			
Line	Description	<u>Year 1</u>	<u>Year 2</u>
1	Book Value (1) <sub>t-1</sub> + (6) <sub>t-1</sub> – (7) <sub>t-1</sub>	\$10.00	\$10.48
2	Market Value $(4) \times (7)$	\$15.00	\$18.08
3	Market/Book Ratio (2)/(1)	1.50x	1.73x
4	Price/Earnings (2)/(7)	15.0x	15.0x
5	Payout Ratio	52%	52%
6	Authorized Book Return on Equity	10.0%	11.5%
7	Earnings per Share (1) x (6)	\$1.00	\$1.21
8	Dividends per Share (5) x (7)	\$0.52	\$0.62
9	(6) x (1-(5))	4.8%	5.5%
10	Dividend Yield (8)/(2)	3.5%	3.5%
11	(0)(2) Annual Return $[((2) + (7)_{t-1})/(2)_{t-1}] - 1$		25%

<sup>&</sup>lt;sup>1</sup> It is likely the P/E ratio would also increase and dividend yield would decrease with an increase to the book equity return because the utility's internal earnings growth rate (Line 9) would increase due to the higher book return and constant payout ratio. An increase to the P/E ratio would widen the market to book ratio more than that estimated in the table.

As shown above, adjusting the regulatory authorized return on book equity from 10.0% to 11.5% would increase the market to book ratio from 1.50x to 1.73x. A utility's market to book ratio would expand if a regulatory commission began to authorize a higher return on book equity by approving Ms. McShane's proposed financial leverage return on equity add-on adjustment. This happens because the utility's market price would adjust to the higher earnings and higher dividend paying ability.

8 Q AT PAGE 53 OF MS. MCSHANE'S TESTIMONY, SHE STATES THAT SHE HAS 9 NO PROBLEM WITH THE APPLICATION OF YOUR DCF MODEL, BUT 10 QUESTIONS WHETHER THE RESULTS ARE AS RELIABLE AS THAT WHICH 11 MAY HAVE BEEN PRODUCED THROUGH A LARGER SAMPLE GROUP. 12 PLEASE COMMENT.

13 Α The validity of Ms. McShane's argument is dubious at best, recognizing that her 14 sample is composed of 17 companies, while my sample is composed of 13. Further, 15 some of the companies included in her comparable group would have been dropped 16 at the time of my analysis due to recent merger activity. Hence, the number of 17 companies in my group, and the number of companies in her group, and the risk 18 selection criteria, do not produce significant differences in the size of the comparable 19 group. But, more importantly, the size of the sample group would not make a 20 significant difference in the results of a DCF return estimate, if the models were 21 applied correctly.

## 1 Q WHY DO YOU BELIEVE PROPER APPLICATION OF THE FINANCIAL MODELS 2 IS MORE RELEVANT THAN THE DIFFERENCE IN PROXY GROUPS?

As shown on my Surrebuttal Schedule MPG-1, I developed a DCF analysis using 3 А mine, Dr. Vander Weide's and Ms. McShane's sample groups in both a constant 4 growth version of a DCF model and a two-stage growth DCF version. In the constant 5 growth version, I used the consensus analysts' growth rate projections as a long-term 6 7 sustainable growth rate estimate. In the non-constant growth version, I've used consensus analysts' growth rate projections over the first five years of the dividend 8 growth period, and used the GDP long-term growth rate forecast of 5.1% reported by 9 the Blue Chip Economic Indicators as the long-term sustainable growth rate estimate 10 11 for all the companies included in all three groups.

12 The constant growth application of these models for Dr. Vander Weide's, Ms. 13 McShane's and my group are 10.0%, 10.9% and 9.5% (pages 1-3), respectively. It is 14 not surprising to see the variation in DCF return estimates because the average 15 group growth rate estimate varies considerably. Specifically, Ms. McShane's group 16 average growth rate is 7.46%, Dr. Vander Weide's is 6.06%, and mine is 5.63%.

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17 Reflecting that many of the companies in these groups have extraordinarily 18 high growth rates over the next three to five years, the two-stage growth model 19 produces a more meaningful assessment of the long-term growth performance for the 20 proxy companies. The multi-stage growth estimates for each of the proxy groups 21 indicate a return of 8.8% for my group, 8.7% for Ms. McShane's group, and 9.0% for 22 Dr. Vander Weide's group (pages 4-6). Combining all three of these groups, the two-23 stage growth DCF model would indicate a return of 8.9% (page 7).

Hence, application of a constant growth and DCF model on the three groups
 produces a variance in the DCF results largely because of the significant discrepancy

in the group average growth rate. Applying a two-stage growth model eliminates the
 DCF result discrepancy almost completely. A two-stage growth DCF model for this
 group indicates, convincingly, that a reasonable DCF return estimate for electric utility
 companies in today's marketplace is around 9.0%.

## 5 Q WHAT DO YOU CONCLUDE FROM YOUR DCF REVIEW OF THE VARIOUS 6 PROXY GROUPS IN THIS PROCEEDING?

7 A While selecting a proxy group is necessary in order to reasonably estimate the fair
 8 return on equity for AmerenUE in this proceeding, AmerenUE witnesses are simply
 9 making inaccurate assertions that a larger proxy group produces a more reliable and
 10 accurate return on equity estimate. Indeed, the estimate of an accurate and reliable
 11 DCF return is most dependent on the use of data that reasonably reflects long-term
 12 sustainable growth, and less dependent on the proxy group difference.

The group selection does have an impact on the beta estimate used in the CAPM return estimate. However, those variations in beta are largely driven by the non-regulated exposure of the companies included in the proxy group, and the fact that utility betas are inflated currently due to abnormally strong price performance over the last five years. I will discuss this issue later in this testimony in response to Dr. Vander Weide.

Nevertheless, I still believe that the proxy groups used by Dr. Vander Weide in
particular contain many companies that are not reasonable risk proxies for
AmerenUE's low regulated operating and financial risk, which I will describe in more
detail later in this testimony.

# 1 Q WHY WOULD THREE TO FIVE-YEAR EARNINGS OUTLOOKS EXCEED A 2 REASONABLE SUSTAINABLE LONG-TERM GROWTH RATE FOR THESE 3 COMPANIES?

A Many utility companies are in the middle of an abnormally large construction
expenditure period. Consequently, these capital expenditure programs are growing
utility rate base at an abnormally high rate. Utilities' earnings are tied to their rate
base. During periods where utilities are making significant improvements to existing
generating stations, constructing new generating stations, and adding transmission
capacity, their rate bases are growing at abnormally high rates.

10 These abnormally high construction expenditures will not continue indefinitely. 11 After this current abnormally high construction period is completed, utility rate base 12 growth would slow to a more normalized sustainable level, and utilities' earnings 13 outlooks will contract to reflect normal levels of capital expenditures. As such, it is 14 reasonable to expect a utility's growth can be abnormally high over the next three to 15 five years, but will subsequently decline to a more reasonable long-term sustainable 16 level thereafter.

17 Q HAS THE UTILITY INDUSTRY RECOGNIZED THE ABNORMALLY HIGH LEVEL

18 OF CAPITAL EXPENDITURES PROJECTED IN THE INDUSTRY OVER THE NEXT

#### 19 THREE TO FIVE YEARS?

A Yes. In the fourth quarter 2006, the Edison Electric Institute (EEI), a utility company
 trade organization, published a financial update for electric utilities. A portion of the
 highlights identified by EEI is as follows:

23"■ Shareholder-owned electric utilities brought 5,857 MW of new24capacity online in 2006, 42% less than in 2005. Natural gas25generation has dropped from 98% of new plant construction in 2002 to

 64% in 2006. In contrast, wind has increased from 1% to 32% over the same time period.
 With reserve margins shrinking in several key regional electricity markets and nationwide power demand growing steadily, the industry

markets and nationwide power demand growing steadily, the industry is now planning a new round of plant construction. Announced new capacity additions totaled 33,998 MW in 2006, surpassing the total for each of the last four years, and over twice that of 2005.

EEI survey results indicate that the industry is planning to invest
\$31.5 billion in the transmission system from 2006-2009, a 58%
increase over the amount invested from 2002-2005. Transmission
investment in 2005 totaled \$5.8 billion, an 18% increase over the \$4.9
billion invested in 2004." (EEI, Construction, Q4 2006 Financial
Update)

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EEI also recognized that the large capital expenditure programs were

15 triggering the need for many rate cases across the country. EEI stated as follows:

16 "■ Rate cases are quickly gaining in importance to an industry
17 embarking on a new capital investment cycle, with rising spending on
18 reliability, enhanced transmission infrastructure, emissions control
19 equipment, and new generation in several power markets.

20The 9 rate case filings in the fourth quarter of 2006 put the total21number of cases filed during 2006 at 42, eight more than the 34 cases22filed in 2005 and 18 more than the 24 cases filed in 2004.

Rate case filings in 2006 were largely driven by construction costs
 for new generation and reliability improvements, adjustments,
 surcharges, and rider mechanisms to counteract regulatory lag and
 rising fuel and purchased power costs.

- Average awarded ROE in the fourth quarter rose slightly, to 10.44%,
  from 10.06% in the third quarter." (EEI, Rate Case Summary, Q4 2006
  Financial Summary)
- 30 As clearly identified by EEI, abnormally large capital expenditures going
- 31 forward, which significantly exceed the capital expenditures over the last few years,
- 32 are driving utilities to file rate cases in increasingly high numbers. This rate case
- 33 activity increases utility rates to recover increasing capital expenditures that will
- 34 increase utilities' earnings over the next three to five-year period as these large
- 35 capital expenditure projects are absorbed in the utilities' cost and rate structures.

This expected increase in capital expenditures and increases in related utility 1 earnings and dividend paying ability is not a sustainable trend, but rather is the result 2 of abnormally high period of industry construction expenditures. Once generation 3 reserve margins are increased to or above target levels, transmission capacity 4 investments are made to alleviate transmission constraints and environmental 5 upgrades are complete, it is reasonable to expect that capital expenditures by utilities 6 will decline to a more normal and sustainable level. This will cause utility earnings to 7 8 drop to a sustainable level thereafter as well.

The assessment by EEI supports the use of a multi-stage growth DCF model 9 in this case, because three to five-year earnings growth projections are unsustainably 10 high because they are following the abnormally high construction expenditure period 11 12 of the utility industry.

#### DID MS. MCSHANE MAKE COMMENTS CONCERNING YOUR EQUITY RISK 13 Q 14

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#### PREMIUM ANALYSIS?

- Yes. The issue she takes with my equity risk premium analysis is described as 15 А follows: 16
  - She argues that inflation during the 1986 through 1995 period averaged 3.5% with a high rate of 5.4%. Inflation during this period is much higher than the current inflation and the inflation experienced over 1996 through 2006 which ranged from 1.6% to 3.4% with an average around 2.6%.
  - She observes that inflation in the post-1996 period has been lower than it was in the pre-1996 period. For this, she makes a leap of logic, without any support, that inflation is more volatile in the post-1996 period because it is lower.
  - She concludes from the two prior points that there is an inverse relationship between interest rates and equity risk premiums.

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She then conducts a regression analysis that suggests when nominal interest
 rates are low, equity risk premiums should be high, based on authorized returns over
 my studied historical period.

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#### DOES MS. MCSHANE'S ARGUMENT HAVE VALIDITY?

A No. Inflation rates were very high in the 1970s and 1980s as reported by lbbotson &
Associates (2006 Yearbook at 17). However, inflation in the 1990s and 2000s has
been relatively moderate at less than 3%.

8 Q DOES THE FACT THAT INFLATION IS LOWER TODAY JUSTIFY AN INCREASE 9 IN THE EQUITY RISK PREMIUM AS MS. MCSHANE ASSERTS?

10 A No. Indeed, the drop in inflation largely explains the change in interest rates today 11 relative to the early 1990s. Specifically, Treasury bond yields during the 1990s 12 ranged from a high of 8.61% to a low of 5.9%. Inflation projections during that time 13 ranged from approximately 3% to 5%. As such, the <u>real</u> returns for bond investments 14 (nominal yield less inflation expectations) during the 1990s moved approximately 15 within the range of 4.0% to 3.0% (see Exhibit MPG-2).

The current inflation outlook is about 2.5%. Current Treasury bond yields are
around 5.0%. This indicates a <u>real</u> return on Treasury bonds of about 2.5%.

Hence, interest rates today are lower than in the 1990s, but a significant portion of the drop in interest rates was created by lower inflation outlooks. Since inflation expectations are also built into equity returns, lower inflation outlooks have reduced both debt and equity returns. All else equal, a reduction in the inflation expectation built into debt and equity would decrease the expected return on both securities by the same amount, and the equity risk premium would not increase
 merely because of a decrease in bond interest rates.

The bottom line is that Ms. McShane's proposal to increase the equity risk premium because of a decline in nominal interest rates ignores the reality that interest rates have declined largely because of a significant drop in inflation expectations. A drop in inflation would reduce both equity returns and bond returns.

7 Q DO ACADEMIC STUDIES SUPPORT AN INVERSE RELATIONSHIP BETWEEN 8 EQUITY RISK PREMIUMS AND INTEREST RATES?

9 Academic studies have found certain periods of time where there has been an inverse А 10 relationship between equity risk premiums and interest rates. I am familiar with 11 academic research conducted using data from the 1970s and 1980s. During that time 12 period, inflation and interest rate volatility was greater than it is today. While 13 academic studies did note an inverse relationship during this period of time, the 14 researchers clearly noted that the relationship between risk premiums and interest 15 rates can vary based on the time period studied. As an example, one study found 16 that the relationship between interest rates and equity risk premiums was positively 17 related in the period 1966 through 1977, and the relationship turned negative 18 beginning in 1980 (The Risk Premium Approach to Measuring Utilities' Cost of Equity, 19 Eugene F. Brigham, Dilip K. Shome, and Steve R. Binson, Financial 20 Management/Spring 1985).

A more recent study where this phenomena was reviewed a second time by authors Robert S. Harris, and Felicia C. Marston, in <u>The Market Risk Premium</u>: <u>Expectational Estimates Using Analysts' Forecasts</u>, the authors corroborated findings in an earlier study and concluded in part as follows:

"Shareholder required rates of return and risk premia should be based on theories about investors' expectations for the future. In practice, however, risk premia are typically estimated using averages of historical returns. This paper applies an alternate approach to estimating risk premia that employs publicly available expectational data. The resultant average market equity risk premium over government bonds is comparable in magnitude to long-term differences (1 926 to 1998) in historical returns between stocks and bonds. As a result, our evidence does not resolve the equity premium puzzle; rather, the results suggest investors still expect *to* receive large spreads to invest in equity versus debt instruments.

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12 "There is strong evidence, however, that the market risk premium 13 changes over time. Moreover, these changes appear linked to the level of interest rates as well as ex ante proxies for risk drawn from interest 14 15 rate spreads in the bond market, consumer confidence in future 16 economic conditions, disagreement among financial analysts in their 17 forecasts and the volatility of equity returns implied by options data. 18 The significant economic links between the market premium and a 19 wide array of risk variables suggests that the notion of a constant risk premium over time is not an adequate explanation of pricing in equity 20 21 versus debt markets." (Page 15) (Emphasis added)

22 As noted by the authors, the level of interest rates and equity risk premiums do

- 23 have some impact on one another. The equity risk premium is, however, impacted by
- 24 changes in the expected investment risk of equity versus debt securities and
- 25 corporate bond spreads, as well as interest rates. These authors note that equity risk
- 26 premiums can be inversely related to government bond interest rates, but positively
- 27 related to corporate bond yield spread to Treasury bond yields.

#### 28 Q HOW DID YOU USE THIS RESEARCH IN YOUR RISK PREMIUM STUDY?

A In my testimony, I measured the spread between utility bond yields and Treasury
 bond yields. I observed that current utility bond yield spreads to Treasury yields are
 at relatively low levels. This would indicate that utility equity risk premiums are not
 high by historical standards as the AmerenUE witnesses suggest. Rather, this
 abnormally low utility bond yield spread to Treasury yield indicates that utility equity

risk premiums may be below historical averages. However, the current interest rates
 alone suggest that the risk premium may be above historical averages.

In my direct testimony, I recognize this conflicting conclusion based on relative risk changes in the industry, and relative interest rate changes. As such, rather than only relying on the drop in interest rates as the AmerenUE witnesses did, I instead reviewed the data to develop a range of possible risk premiums that may be currently prevailing. In contrast, the AmerenUE witnesses only reviewed changes in interest rates.

9 For these reasons, the AmerenUE witnesses' equity risk premium adjustments 10 for interest rates significantly exaggerate reasonable equity risk premiums for utility 11 companies today. This simply does not capture the market's evaluation of utilities' 12 back to basics operating risk reduction achievements.

## 13 Q WHAT COMMENTS DOES MS. MCSHANE HAVE REGARDING YOUR CAPM 14 STUDY?

15 A Ms. McShane takes issue with my development of a market risk premium, and my 16 use of utility betas. Specifically, she asserts that my proposal to rely on a risk 17 premium type analysis to estimate a return on the market to arrive a market risk 18 premium is unreasonable. Second, she continues to support the use of an income 19 return on Treasury bonds compared to the total historical achieved market return 20 (income and capital appreciation) to derive a market risk premium.

> Michael Gorman Surrebuttal Page 18

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#### 1 Q IS MS. MCSHANE'S ASSESSMENT OF YOUR CAPM ARGUMENTS REASON-

ABLE?

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No. I relied on a risk premium method of estimating a market return, which is a 3 Α reasonable approach. Indeed, Ms. McShane is relying on risk premium type 4 analyses to estimate a return for AmerenUE in this proceeding. It is simply 5 contradictory and unreasonable for her to argue that it is inappropriate to use a risk 6 premium analysis to estimate a return on the market to derive a market risk premium, 7 but at the same time use a risk premium analysis to support her recommended return 8 9 for AmerenUE.

10 My market risk premium analysis is based on the well-documented premise 11 that investors expect returns that maintain the nominal value of their investment, plus 12 a real return. The real return would include an equity risk premium appropriate for the 13 security and real return characteristics of all the securities. Relying on the actual 14 achieved real return on the market provides relevant information for assessing the 15 real return opportunities by investing in the market going forward.

16 Ibbotson & Associates' data indicates that investors have earned the real 17 return on the market of 9.1%, that is the return less the effects of inflation. If this real 18 return performance continues, then a reasonable estimate of an expected future 19 return on the market would be the real return of 9.1%, adjusted by the long-term 20 inflation rate of 2.3%. This produces an expected return on the market of 11.6%.

21 Q MS. MCSHANE CRITICIZES YOUR REAL RETURN INFLATION RISK PREMIUM 22 STUDY BECAUSE THERE IS NOT A STRONG CORRELATION BETWEEN 23 INFLATION AND STOCK RETURNS IN THE PAST. IS SHE CONSISTENT IN

### 1 USING ONLY HISTORICAL DATA WHERE THERE IS A STRONG STATISTICAL 2 CORRELATION?

A No. Ibbotson & Associates clearly finds that there is no relationship between stock
returns and the market risk premiums. Indeed, Ibbotson & Associates characterizes
the relationship between stock returns and market risk premiums to be "random"
(2006 Yearbook at 118). What this means is that historical equity risk premiums
estimated by Ibbotson are not correlated with historical stock returns.

8 Hence, Ms. McShane relied on data sets that are not strongly correlated in 9 order to draw inferences about market risk premiums going forward. As such, it is 10 contradictory for Ms. McShane to argue that my risk premium study is not reasonable 11 because there is not a strong correlation between historical inflation and stock 12 returns. Ms. McShane cannot have it both ways. If my proposed risk premium 13 estimate of a future market return is not reasonable, then equally, Ms. McShane's risk 14 premium estimate using Ibbotson & Associates' data should be rejected.

15QDOES MS. MCSHANE CONTINUE TO SUPPORT HER DEVELOPMENT OF A16MARKET RISK PREMIUM FROM THE TOTAL ACHIEVED RETURNS ON MARKET17EQUITIES LESS THE INCOME RETURN ON TREASURY BONDS OVER THE18PERIOD 1926 THROUGH 2006?

A Yes. For reasons discussed in my direct testimony, however, this methodology is
 unreasonable. The reasons to reject her market risk premium are:

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• It does not compare actual market to actual annual Treasury bond returns for the same time period. An historical achieved return on the market is a backward looking return estimate. In comparison, the historical income return on Treasury bonds is the forward-looking expected return. This methodology estimates a market risk premium using a mismatch in return time periods.

1 There is no risk free rate available in the market. As such, one must 2 use a proxy to estimate the market risk premium. If Treasury bonds 3 are used as the proxy, then the relevant question is "What return 4 premium have market equities provided over the proxy risk free rate in 5 historical data?" The answer to that questions is the difference 6 between the actual total achieved return on the market, less the actual 7 total achieved return on Treasury bonds. As discussed in my direct 8 testimony, this indicates a market risk premium of 6.5%.

9 Neither Ms. McShane nor Dr. Vander Weide have added any new evidence to
10 support their flawed method of estimating a market risk premium, and it is clear that
11 their market risk premium is excessive and overstated.

12 Q IN SUPPORT OF HER DCF STUDY AT PAGE 58 OF HER REBUTTAL
 13 TESTIMONY, MS. MCSHANE ARGUES THAT CONSENSUS ANALYSTS' FIVE 14 YEAR GROWTH RATE SHOULD BE USED IN THE DCF STUDY IRRESPECTIVE
 15 OF WHETHER THOSE GROWTH RATES ARE REASONABLE PROXIES FOR
 16 LONG-TERM SUSTAINABLE GROWTH. DO YOU AGREE?

17 A No. A constant growth DCF study, that Ms. McShane relied on, requires a growth
18 rate estimate that is a reasonable proxy for long-term sustainable growth. As Ms.
19 McShane states, and I agree, analysts do not publish growth rate estimates beyond
20 three to five years. In most instances, analysts' three to five year growth rate
21 projections are reasonable proxies for long-term sustainable growth rates.

However, as discussed above, many utilities are involved in abnormally large capital programs which have caused the three to five-year growth to increase to abnormally high levels. During these periods, primary weight should be given to multi-stage growth DCF models.

26 Q DID YOU PERFORM A TEST TO SHOW THE REASONABLENESS OF THE 27 GROWTH RATE USED IN YOUR CONSTANT GROWTH STUDY AND WHETHER

## 1 A CONSTANT GROWTH MODEL IS A REASONABLE ESTIMATE OF A DCF 2 RETURN IN THIS PROCEEDING?

A Yes. I specifically reviewed the growth rate of my DCF study to determine whether it
is a reasonable proxy of a long-term sustainable growth. I concluded that for my
proxy group, the growth rate was reasonable. However, I concluded that Ms.
McShane and Dr. Vander Weide's proxy group growth rates were not reasonable
sustainable growth rates. (See my direct testimony at pp. 10, 11, 31-34 and 47.)

## 8 Q HAVE YOU RELIED ON MULTI-STAGE GROWTH DCF MODELS IN SUPPORT OF 9 YOUR RETURN ON EQUITY IN OTHER PROCEEDINGS?

10 A Yes, in numerous cases. For example, in one case before the Illinois Commerce 11 Commission in Docket No. 02-0432 cited by Ms. McShane, I found that the growth 12 rates used in my constant growth DCF model were abnormally high. As a result, I 13 used a multi-stage growth rate DCF model to produce a reasonable return on equity 14 recommendation for Illinois Power Company. Contrary to Ms. McShane's inaccurate 15 assertion, I did not rely on a constant growth DCF model using growth rate estimates 16 that I found to be unreasonably high.

17 In other proceedings, primarily during the mid to early 1990s, I employed 18 multi-stage growth DCF models because the growth rates used in a constant growth 19 model were abnormally low<sup>2</sup> and used multi-growth DCF models with higher long-20 term growth.

<sup>&</sup>lt;sup>2</sup> See for example, Central Power & Light Company, Public Utility Commission of Texas Docket No. 12820, October 1994; and Gulf States Utilities Company, Public Utility Commission of Texas Docket No. 12852, November 1994.

1 Q DO YOU HAVE ANY COMMENTS RELATED TO MS. MCSHANE'S RISK 2 PREMIUM STUDIES?

A Ms. McShane's risk premium studies are based on unreasonable market risk
 estimates, and inordinately high utility beta estimates. I have already discussed Ms.
 McShane's inflated risk premiums and inordinately high utility betas in my direct
 testimony. Ms. McShane did not provide any additional support in her rebuttal
 testimony.

8 Hence, I continue to assert that Ms. McShane's CAPM return estimates are 9 overstated because of reliance on excessive market risk premiums and inflated utility 10 betas.

# 11 Q DOES MS. MCSHANE ALSO USE SELECTED DATA IN SUPPORTING HER 12 ESTIMATED RETURN ON THE MARKET AND DERIVING A MARKET RISK 13 PREMIUM FOR RISK PREMIUM STUDIES?

A Yes. Ms. McShane's arguments are contradictory or do not support her inflated
 market risk premium of 7.7%. Further, Ms. McShane argues that her method of
 estimating a market return is superior to that of relying on Value Line data.

#### 17 Q ARE MS. MCSHANE'S ARGUMENTS REASONABLE?

A No. Again, Ms. McShane is relying only on market data which supports high return
estimates, and rejects reasonable data that support more reasonable return
estimates. Specifically, Ms. McShane's contention that her market return of 12.7% is
reasonable in comparison to the historical achieved return of 12.3% simply ignores
the bottom line. Specifically, historical data supports a market risk premium of 6.5%,
the way I estimated it, and 7.1% the way Ms. McShane proposes to use historical

data. As such, Ms. McShane's market risk premium of 7.7% based on her DCF of the
 market is inflated and unreasonable.

Further, Ms. McShane's argument that Value Line data does not provide a meaningful assessment of the expected return on the market is not credible. Ms. McShane relied on Value Line company-specific projections herself in her DCF study. It is disingenuous of Ms. McShane to argue that Value Line data is not reliable when she does not like the results, but in turn to rely on Value Line data when she does like the results.

# 9 Q DO YOU BELIEVE IT IS REASONABLE FOR MS. MCSHANE TO HAVE RELIED 10 ON A BETA ESTIMATE GREATER THAN 0.8 IN SUPPORTING HER CAPM 11 RETURN ESTIMATE?

12 A No. I acknowledge that current electric utility betas for many companies are
13 increasing, but a beta of 0.8 reflects most utility betas. In my direct testimony (pp. 1714 18), I showed that the reason utility betas are increasing is not increasing risk, but
15 rather the fact that electric utility stock returns have outperformed the market over the
16 last five years. This is also true for gas utility returns.

Beta estimates are derived from a regression analysis that estimates the correlation between utility stock returns and market stock returns. This recent strong price performance of utility stocks is giving a false impression of utility stock return volatility. A careful review of other utility risk indicators show that utility investment risk is stabilizing to decreasing relative to the last five years. Hence, care should be used to select a utility beta estimate that fairly reflects the utility investment risk.

#### 1 RESPONSE TO MR. LEE NICKLOY

#### 2 Q TO WHAT ASPECTS OF MR. NICKLOY'S TESTIMONY DO YOU RESPOND?

A Mr. Nickloy argues that S&P financial credit rating benchmarks should not be used to
judge the reasonableness of a recommended rate of return in this proceeding. Mr.
Nickloy acknowledges that these ratios are important, but he asserts that these
financial ratios are only part of S&P's credit rating evaluation.

- 7 Therefore, he takes issue with my use of the S&P financial ratios to support
  8 the reasonableness of my return on equity recommendation. He states that use of
  9 these ratios is inappropriate for the following reasons:
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- They do not encapsulate the total credit rating review of S&P.
- Rating agencies are arbiters of credit ratings, and only credit rating agencies know how much weight they give to the various factors considered in establishing a utility's credit rating.
- As part of their ratio analysis, rating agencies typically make
   adjustments. In order to provide meaningful ratio analysis, ratios
   should consider comparable adjustments as the rating analysts would
   make.
- The rating agencies use projected financial ratios 1.5 to 2 years in the future, not test year financial periods.

20QPLEASE RESPOND TO MR. NICKLOY'S CONCERN ABOUT USING S&P'S21CREDIT RATING FINANCIAL METRICS IN JUDGING THE REASONABLENESS22OF APPROVED RETURNS.

A I disagree with Mr. Nickloy. S&P's credit rating financial metric calculations are
 transparent and can reliably be used to demonstrate whether a proposed return on
 equity will support a utility's credit rating financial metrics. This is meaningful
 information to use in establishing whether a proposed return on equity is both fair
 compensation given today's market cost of capital, and will also support the utility's

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financial integrity, credit rating and access to capital. Indeed, these credit metrics are
 an integral part of the Regulatory Plans this Commission has approved for Kansas
 City Power & Light Company and Empire District Electric Company.

4 Q HAS MR. NICKLOY PROPOSED AN ALTERNATIVE MEANS OF DETERMINING
 5 WHETHER THE PROPOSED AUTHORIZED RETURN ON EQUITY WILL HELP
 6 SUPPORT THE UTILITY'S CREDIT RATING AND FINANCIAL INTEGRITY?

7 A No. Mr. Nickloy's objective appears to be to cloak the assessment of a utility's
8 financial integrity in an opaque shroud, thus removing all transparency in the
9 evaluation of whether a return will support a utility's credit rating and financial
10 integrity.

Mr. Nickloy's position is completely contrary to providing this Commission with competent, transparent analysis to support sound decisions. Instead, Mr. Nickloy appears to suggest that the Commission should believe the company on these important issues, with no backup or credible evidence to support the utility's position. I strongly encourage the Commission to reject Mr. Nickloy's efforts to try to eliminate transparency in the rate setting process.

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Q DO OTHER UTILITIES USE S&P'S FINANCIAL RATIOS TO SUPPORT RATE OF

#### 18 **RETURN RECOMMENDATIONS**?

A Yes. Many other utility company witnesses recognize the information value of the
 S&P credit metric ratios. For example, in the most recent Aquila Missouri utility rate
 case, Aquila witness Dr. Samuel Hadaway relied on S&P financial credit metric ratio
 calculations to show that his recommended return on equity would support a target

bond rating for Aquila<sup>3</sup>. Also, Wisconsin Power & Light Company witness Enrique
 Bacalao has reviewed S&P's financial ratio benchmarks in support of his capital
 structure and rate of return recommendations in its rate filings in the State of
 Wisconsin<sup>4</sup>.

5 Further, in Ameren's Illinois utility rate filings, the Illinois Commerce 6 Commission Staff relied on S&P's credit rating financial benchmark calculations to 7 support the reasonableness of its rate of return on equity recommendations and 8 capital structure recommendations for Ameren's Illinois utilities<sup>5</sup>. The Illinois 9 Commerce Commission Staff made the same calculations in support of its rate of 10 return positions for Commonwealth Edison Company<sup>6</sup>.

11 The derivation of the S&P credit metrics is largely a transparent methodology 12 because S&P publishes reports that describe how these financial ratios are 13 calculated. As such, the S&P financial ratios should not be disregarded as 14 recommended by Mr. Nickloy, and the ratemaking process should be a transparent 15 and open process.

#### 16 **RESPONSE TO DR. VANDER WEIDE**

#### 17 Q WHAT ISSUES DOES DR. VANDER WEIDE TAKE WITH YOUR RECOMMENDED

- 18 COST OF EQUITY FOR AMERENUE?
  - A Dr. Vander Weide takes the following issues with my recommended return on equity
- 20 for AmerenUE:

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22 23  Dr. Vander Weide suggests that his proxy group provides a more reliable estimate of AmerenUE's cost of equity because it is a larger sample group.

<sup>&</sup>lt;sup>3</sup> Direct Testimony, Dr. Samuel C. Hadaway, Schedule 6, Case No. ER-2007-0004.

<sup>&</sup>lt;sup>4</sup> Prefiled Supplemental Direct Testimony, Enrique Bacalao, April 27, 2006, Docket 6680-UR-115.

<sup>&</sup>lt;sup>5</sup> Direct Testimony, Janis Freely, ICC Staff Ex. 4.0, Docket Nos. 06-0070, 06-0071, and 06-0072.

<sup>&</sup>lt;sup>6</sup> ICC Order, Docket No. 05-0597 at 124, July 26, 2006.

 Dr. Vander Weide is critical of me for not accepting his proxy group in this case, while I relied on his proxy group in a Progress Energy case in 2005.

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- Dr. Vander Weide is critical of my risk premium model because it is based on commission-authorized returns on equity.
- Dr. Vander Weide believes there is an inverse relationship between commission-authorized returns on equity and the level of interest rates.
- Dr. Vander Weide believes I should have used only projected interest rates, and ignored today's current observable real interest rate costs to AmerenUE.
  - Dr. Vander Weide believes my CAPM return estimate is too low because of my market risk premium and the use of my proxy group beta estimate.

14QPLEASE RESPOND TO DR. VANDER WEIDE'S ARGUMENT THAT USING HIS15PROXY GROUP WOULD PROVIDE A MORE RELIABLE RETURN ON EQUITY16ESTIMATE FOR AMERENUE IN THIS CASE BECAUSE IT INCLUDES MORE17COMPANIES.

18 А Dr. Vander Weide's proxy group contains many companies that are not reasonable 19 risk proxies for AmerenUE in this case. I would note that, importantly, Dr. Vander 20 Weide's proxy group in this case is different from the proxy group he used in the 21 Progress Energy case in 2005. The reason the proxy group has changed is that the 22 company-specific risk factors have changed, and the industry has changed. As a result, some of the companies he used in 2005 failed his selection criteria in this 23 24 case. Further, more of the companies Dr. Vander Weide included in this case would 25 have failed his selection criteria at the time I filed my direct testimony due to 26 continued merger activity. This update would have reduced the size of his proxy 27 group in this case.

#### 1 Q WHY DID YOU REJECT DR. VANDER WEIDE'S PROXY GROUP IN THIS CASE?

A I rejected his group because the group contains many companies that are simply not
 reasonable risk proxies for AmerenUE. Specifically, his proxy group contained many
 companies that are not predominately in regulated utility businesses. I identified
 those companies that have S&P business profile scores out of line with typical ratings
 for integrated electric utility companies. Non-regulated investment risk is not
 comparable to AmerenUE's low regulated investment risk.

8 This is evident based on just a general review of the industry. Indeed, the 9 electric utility industry has enjoyed a resurgence by capital markets because the 10 market is attracted to regulated utilities' stable cash flows and low risk. In contrast, 11 many non-regulated businesses, particularly those in the energy industry, are faced 12 with managing commodity risk, limited access to capital, and have distinguishably 13 higher operating risk than regulated utility companies.

# 14 Q DID YOU ACCEPT DR. VANDER WEIDE'S PROXY GROUP IN THE PROGRESS 15 ENERGY CASE WITHOUT INDEPENDENT REVIEW OF THE APPROPRIATE-16 NESS OF THAT PROXY GROUP?

17 A No. In that case, I applied the same proxy selection criteria I used in this case. 18 Because his group was larger in that case, because of the investment parameters of 19 Progress Energy in relationship to the group, I found his group to be reasonably 20 comparable to Progress Energy. However, in this case, many of the companies Dr. 21 Vander Weide had used in the Progress Energy case no longer met his selection 22 criteria. This resulted in a proxy group that is much more heavily weighted with 23 companies that are largely exposed to non-regulated investment risk. For these reasons, I found his proxy group to be an unreasonable group to use to estimate
 AmerenUE's return in this proceeding.

3 Q IS THERE ADDITIONAL EVIDENCE THAT MANY OF THE COMPANIES 4 INCLUDED IN DR. VANDER WEIDE'S PROXY GROUP ARE SIGNIFICANTLY 5 INVOLVED IN NON-REGULATED BUSINESS ACTIVITIES?

6 Yes. This is shown on my attached Surrebuttal Schedule MPG-3. As shown on this А 7 schedule, many of the companies have S&P business profile score rankings above 6. 8 AmerenUE's current ranking is 5. The significance of S&P's business profile score 9 ranking is that it indicates the operating risk of the underlying enterprise. S&P 10 generally rates integrated utility companies with business profile scores in the range of 4 to 6<sup>7</sup>. AmerenUE's business profile score reflects a typical operating risk 11 12 integrated utility company. In significant contrast, many of the companies included in Dr. Vander Weide's comparable group have operating risks significantly higher than 13 14 traditional integrated utility companies.

This conclusion is also supported by a report published by the Edison Electric 15 16 Institute (EEI), which ranked companies' exposure to regulated and non-regulated 17 business operations on the basis of the following classifications: (1) Regulated, (2) Mostly Regulated, and (3) Diversified. EEI distinguishes the companies based on the 18 19 percentage of regulated assets to total assets. A Regulated designation indicates 20 that 80% or more of the companies' total assets are regulated, Mostly Regulated 21 indicates that 50% to 80% of total assets are regulated, and Diversified companies 22 are those with less than 50% of total assets that are regulated (Fourth Quarter 2006

<sup>&</sup>lt;sup>7</sup> S&P, New Business Profile Scores Assign for U.S. Utility and Power Companies; Financial Guidelines Revised, June 2004.

Financial Update Stock Performance, EEI). Based on EEI's evaluation of the companies included in Dr. Vander Weide's group, only 15 of the 34 companies are regarded as primarily involved in regulated operations. Ameren Corp is one company that is regarded as primarily regulated.

5 Dr. Vander Weide's proxy group simply ignores the significant protection 6 regulation provides AmerenUE, and he proposes a return on equity that ignores 7 AmerenUE's lower risk attributable to its franchise service territory and cost-based 8 rate authority for its Missouri utility operation.

9 Q SETTING ASIDE YOU DISAGREEMENT WITH DR. VANDER WEIDE'S PROXY 10 GROUP, DOES THE SELECTION OF THE PROXY GROUP HAVE A SIGNIFICANT 11 IMPACT ON THE ESTIMATED DCF RETURN FOR AMERENUE IN THIS 12 PROCEEDING?

13 No. I addressed this assertion above in response to Ms. McShane. I also showed in А my direct testimony that a reasonable application of Ms. McShane's proxy group and 14 studies, and Dr. Vander Weide's studies on his proxy group, would support my return 15 16 on equity for AmerenUE of 9.8%. The reason my recommended return and that of 17 Ms. McShane and Dr. Vander Weide diverged so significantly is not a result of the proxy group. Rather, it is the result of their use of excessive growth rates in DCF 18 19 studies, and inappropriate and inflated equity risk premiums. Correcting these 20 witnesses' excessive growth rates and equity risk premiums, applied to their own 21 proxy groups, would support a return on equity of around 9.8%, or my recommended 22 return in this proceeding.

1QDR. VANDER WEIDE TOOK ISSUE WITH YOUR RISK PREMIUM STUDY AND2ARGUES THAT YOU SHOULD HAVE INCREASED YOUR EQUITY RISK3PREMIUM TO REFLECT AN INVERSE RELATIONSHIP BETWEEN INTEREST4RATES AND EQUITY RISK PREMIUMS. PLEASE RESPOND.

5 А I have already addressed this false assertion in my response to Ms. McShane. 6 Importantly, academic evidence indicates that equity risk premiums will expand as the 7 difference between equity investment risk and debt investment risk change. Neither 8 Ms. McShane nor Dr. Vander Weide has shown that utility stock investment risk has 9 increased in comparison to bond investment risk. Neither Ms. McShane nor Dr. 10 Vander Weide provided a credible response to my evidence that showed that utility 11 bond yield spreads over Treasury bonds have narrowed in more recent years. Both have simply relied on interest rate changes, even though academic research shows 12 13 that the risk premium relationship to interest rates changes in different market 14 conditions is not simply tied to interest changes. Therefore, the AmerenUE 15 witnesses' proposal to inflate historic equity risk premiums due only to interest rate 16 changes to estimate AmerenUE's cost of equity capital should be rejected.

17QDR. VANDER WEIDE ALSO TOOK ISSUE WITH YOUR CAPM RESULTS IN18ASSERTING THAT YOUR MARKET RISK PREMIUM AND BETA ESTIMATES19WERE TOO LOW. PLEASE RESPOND.

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A I have already responded to Dr. Vander Weide's assertion that I should have
developed a market risk premium based on a total equity return on the market, less
the income return on Treasury bonds. This is the same argument made above and
discussed in response to Ms. McShane.

1 Dr. Vander Weide's proxy group produces a higher beta estimate because it 2 largely includes companies that are predominately in non-regulated businesses. 3 Many companies, including companies in the State of Missouri such as Aquila, have 4 non-regulated investment risk and are in the process of reducing debt in order to 5 revert to a back-to-basics strategy. This back-to-basics encompasses a movement 6 back to low-risk regulated utility operations. Dr. Vander Weide is relying on 7 companies that are predominately or largely influenced by non-regulated higher risk 8 activities and, thus, his proxy group beta is unreasonably high for AmerenUE's low-9 risk utility operations.

For these reasons, Dr. Vander Weide's proposed beta estimate is excessive for AmerenUE and inflates a fair return on equity estimate for AmerenUE. For all of these reasons, Dr. Vander Weide's recommended return on equity for AmerenUE should be rejected.

14 Q DR. VANDER WEIDE INDICATES HIS GROUP AVERAGE BOND RATING AND
 15 VALUE LINE SAFETY RANK ARE COMPARABLE TO YOURS, AND THEREFORE
 16 HIS PROXY GROUP IS REASONABLY COMPARABLE IN RISK TO AMERENUE.
 17 PLEASE RESPOND.

A Many of the companies in Dr. Vander Weide's group are reverting to "back to basics"
 and mitigating their significant exposure to unregulated investment risks. However,
 as discussed above, many of these companies are still exposed to significant non regulated investment operations. Therefore, his group should be rejected.

# 22QAT PAGE 80, DR. VANDER WEIDE STATES THAT YOU RELIED ON HIS USE OF23S&P BOND RATINGS AND VALUE LINE SAFETY RANKINGS IN DEVELOPMENT

1 OF A PROXY GROUP IN THE PROGRESS ENERGY CASE. IS THIS 2 ACCURATE?

A No. In the Progress Energy case, I clearly stated in my testimony that I evaluated Dr.
Vander Weide's proposed proxy group and, based on my independent evaluation,
found that the proxy group was a reasonable proxy for Progress Energy in that case.
Hence, in order to limit the issues between Dr. Vander Weide and myself, I chose to
rely on his group. Dr. Vander Weide is inaccurate in contending that I relied on his
selection criteria in determining that that proxy group was a reasonable risk proxy for
estimating a fair return in that proceeding.

# 10 Q DR. VANDER WEIDE DISAGREES WITH YOUR CONCLUSION THAT A LONG-11 TERM SUSTAINABLE GROWTH RATE FOR A UTILITY CANNOT EXCEED THE 12 NOMINAL GROWTH IN GDP. PLEASE RESPOND.

13 A Dr. Vander Weide contends that a utility's growth can exceed the GDP growth rate for 14 many years. 1 agree. But, the flaw in his analysis is, unfortunately, that his DCF 15 model is a constant growth model, which assumes that companies can grow at a rate 16 greater then the GDP growth rate over <u>an indefinite period of time</u>. It is this 17 assumption that is irrational and unreasonable.

18 If earnings were growing at a rate that exceeded the GDP for an indefinite
19 period of time, then eventually those companies would become a large percentage of
20 the total GDP economy. This is simply not a rational expectation.

Further, as I noted in my direct testimony, a utility's growth typically follows the growth in the local service area economy. Utilities' earnings grow in this manner because utilities make utility plant investment to meet sales growth. Sales growth is triggered by economic service area growth. As such, it is not rational to expect that a
utility's earnings can grow faster than the economy in which it sells its services. As a
 result, <u>over the long-term</u>, utility investment growth cannot exceed the growth rate of
 the overall economy, that is simply not an achievable result.

4 It would be reasonable to recognize that utilities can grow faster than the 5 overall economy in the short term. This can be captured in a two-stage DCF model. 6 In fact, I used the model above that showed DCF results for Ms. McShane, Dr. 7 Vander Weide's and my proxy groups all produce approximately the same DCF return 8 estimates using a two-stage growth model. Unfortunately, Dr. Vander Weide did not conduct a multi-stage growth DCF analysis. He only relied on a constant growth DCF 9 10 model assuming unrealistically high sustainable growth rates, which produced an 11 excessive, unrealistic and flawed DCF estimate.

12QDR. VANDER WEIDE ARGUES THAT A QUARTERLY DCF MODEL IS13REASONABLE BECAUSE INVESTORS CAN ONLY REINVEST THEIR14QUARTERLY DIVIDENDS ONCE. PLEASE RESPOND.

A The model overstates a DCF return by double counting the reinvestment return and
thus overstates the utility's cost of capital.

This is best illustrated by a simple example. Consider a bond investment with a face value of \$1,000. This bond pays two semi-annual coupon payments of \$30, yielding a coupon return on the bond investment of 6%. Hence, the utility's cost of this bond would be 6%, which is a return adequate to fund the two semi-annual coupon payments of \$30, or \$60 per year.

In contrast, the investors expected yield on the bond investment would be
6.09%. The increased return is realized because the investor would have reinvested
the \$30 coupon payment received in month six for the remaining six-months of the

Michael Gorman Surrebuttal Page 35 year. Hence, the bond investor's expected annual return on the bond investment is
 produced from (1) utility coupon payments, and (2) coupon reinvestment returns. Dr.
 Vander Weide's quarterly compounding method would require utility customers to pay
 the compound yield of the bond investment of 6.1%, when the utility's actual cost of
 the bond is only 6.0%.

As such, Dr. Vander Weide's quarterly compounding DCF model would award
AmerenUE a rate of return that exceeds its cost of equity.

8 Q DR. VANDER WEIDE ASSERTS THAT HE DID NOT INTENTIONALLY SELECT A 9 TIME PERIOD IN ORDER TO INCREASE HIS EX-ANTE RISK PREMIUM 10 ANALYSIS. PLEASE RESPOND.

11 A The fact of the matter is that the time period Dr. Vander Weide used for his electric 12 utility risk premium did increase the equity risk premium. There is no rational basis to 13 have used a different time period for his electric sample than his gas sample. Had he 14 used comparable time periods, his electric risk premium would have been lower.

Q DR. VANDER WEIDE ASSERTS THAT YOU SHOULD ONLY USE FORECASTED
 INTEREST RATES FOR CALENDAR YEAR 2007, THE PERIOD AMERENUE'S
 RATES WILL BE IN EFFECT. PLEASE RESPOND.

A There is no way of knowing what interest rates will be in calendar year 2007. What is certain is that forecasted interest rates are not known and measurable, and using forecasted interest rates may significantly depart from AmerenUE's actual cost of capital during the period rates are in effect. For these reasons, it is reasonable to consider both actual and forecasted interest rates in arriving at a return on equity recommendation.

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Dr. Vander Weide's use of only forecasted rates ignores the fact that real interest rates at the time he performed his analysis are much lower. As such, he is using only high interest rate estimates to support his return on equity recommendation. In my analysis, I considered both current observable interest rates and projected interest rates. I also provided evidence that showed that current observable interest rates are just as likely to be AmerenUE's actual cost of capital during the period rates are in effect, as projected interest rates.

8 Using all pertinent information to derive a return on equity recommendation is 9 superior to only using high returns, as Dr. Vander Weide has done to support his 10 inflated return on equity recommendation.

11QDR. VANDER WEIDE RESPONDS TO YOUR ASSERTION THAT HE MADE NO12EFFORT TO ENSURE THAT HIS PROXY GROUP WAS A REASONABLE RISK13PROXY TO AMERENUE. HE ASSETS THAT HE COMPARED HIS PROXY14GROUP'S VALUE LINE SAFETY RANK AND BOND RATING TO THAT OF15AMERENUE. THUS, HE DID ENSURE THAT THE GROUP WAS COMPARABLE16IN RISK TO AMERENUE (AT 78). PLEASE RESPOND.

17 A Dr. Vander Weide's use of Value Line's safety rank is applied to Ameren Corp., not
18 AmerenUE. Ameren Corp. has an S&P business profile of 7, which indicates much
19 higher operating risk than that of AmerenUE, which has an S&P business profile
20 score of 5. As such, he is relying on Value Line parameters for Ameren Corp. as a
21 reasonable risk proxy for AmerenUE.

1 would agree that Dr. Vander Weide's comparison of AmerenUE's bond rating
to the proxy group is a reasonable risk proxy factor. However, that one factor does
not explain the fundamental differences in investment risk. I believe additional

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**BRUBAKER & ASSOCIATES, INC.** 

emphasis should be placed on selecting companies that are predominately regulated
utility operations, and are not heavily influenced by large investments in nonregulated operations. As such, I believe Dr. Vander Weide's selection criteria did not
focus enough on AmerenUE's investment risk, and therefore resulted in the selection
of companies that are not reasonable risk proxies for AmerenUE.

#### 6 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

7 A Yes, it does.

MPG:mcl/8632/107643

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### **Constant Growth DCF Model (Gorman)**

<u>Line</u>	Electric Utility	/eek AVG <u>ck Price<sup>1</sup></u> (1)	AVG (%) <u>Growth</u> (2)	nnual <u>idend<sup>2</sup></u> (3)	Adjusted <u>Yield</u> (4)	Constant <u>Growth DCF</u> (5)
1	Alliant Energy	\$ 38.14	5.33%	\$ 1.15	3.18%	8.51%
2	Ameren Corp.	\$ 53.66	6.48%	\$ 2.54	5.04%	11.52%
3	DTE	\$ 47.32	5.71%	\$ 2.06	4.60%	10.32%
4	FirstEnergy Corp.	\$ 60.24	7.29%	\$ 1.80	3.21%	10.50%
5	IDACORP Inc.	\$ 38.31	5.00%	\$ 1.20	3.29%	8.29%
6	NiSource Inc.	\$ 24.03	3.41%	\$ 0.92	3.96%	7.37%
7	OGE Energy	\$ 39.37	5.67%	\$ 1.36	3.65%	9.32%
8	Pinnacle West Capital	\$ 49.58	6.03%	\$ 2.10	4.49%	10.52%
9	Puget Energy Inc.	\$ 24.91	4.89%	\$ 1.00	4.21%	9.09%
10	SCANA Corp.	\$ 41.20	4.53%	\$ 1.68	4.26%	8.80%
11	Southern Co.	\$ 36.57	4.79%	\$ 1.55	4.45%	9.24%
12	Wisconsin Energy	\$ 47.18	8.35%	\$ 0.92	2.11%	10.47%
13	Xcel Energy Inc.	\$ 23.19	5.64%	\$ 0.89	4.06%	9.70%
14	Average	\$ 40.29	5.63%	\$ 1.48	3.89%	9.5%

Sources:

<sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006. <sup>2</sup> The Value Line Investment Survey; December 1, December 29, February 9, 2007.

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### **Constant Growth DCF Model (McShane)**

<u>Line</u>	Electric Utility	/eek AVG <u>ck Price<sup>1</sup></u> (1)	AVG (%) <u>Growth</u> (2)	nnual <u>(idend<sup>2</sup></u> (3)	Adjusted <u>Yield</u> (4)	Constant <u>Growth DCF</u> (5)
1	Amer. Elec. Power	\$ 42.83	4.39%	\$ 1.56	3.80%	8.20%
2	Ameren Corp.	\$ 53.66	6.48%	\$ 2.54	5.04%	11.52%
3	Edison International	\$ 45.30	7. <del>9</del> 4%	\$ 1.16	2.76%	10.71%
4	Entergy Corp.	\$ 92.69	9.01%	\$ 2.16	2.54%	11.55%
5	Exelon Corp.	\$ 61.03	9.38%	\$ 1.60	2.87%	12.25%
6	FirstEnergy Corp.	\$ 60.24	7.29%	\$ 1.80	3.21%	10.50%
7	FPL Group	\$ 55.09	8.67%	\$ 1.50	2.96%	11.63%
8	G't Plains Energy	\$ 31.75	2.88%	\$ 1.66	5.38%	8.26%
9	PG&E Corp.	\$ 46.69	7.87%	\$ 1.32	3.05%	10.92%
10	Pinnacle West Capital	\$ 49.58	6.03%	\$ 2.10	4.49%	10.52%
11	PNM Resources	\$ 30.73	9.27%	\$ 0.88	3.13%	12.40%
12	PPL Corp.	\$ 35.77	10.50%	\$ 1,10	3.40%	13.90%
13	Sempra Energy	\$ 56.50	6.37%	\$ 1.20	2.26%	8.63%
14	Southern Co.	\$ 36.57	4.79%	\$ 1.55	4.45%	9.24%
15	TXU Corp.	\$ 55.27	11.87%	\$ 1.74	3.52%	15.39%
16	Wisconsin Energy	\$ 47.18	8.35%	\$ 0.92	2.11%	10.47%
17	Xcel Energy Inc.	\$ 23.19	5.64%	\$ 0.89	4.06%	9.70%
18	Average	\$ 48.48	7.46%	\$ 1.51	3.47%	10.9%

Sources:

<sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006.
 <sup>2</sup> The Value Line Investment Survey; December 1, December 29, February 9, 2007.

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#### **Constant Growth DCF Model (Vander Weide)**

<u>Line</u>	<u>Electric Utility</u>	 eek AVG : <u>k Price<sup>1</sup></u> (1)	AVG (%) <u>Growth</u> (2)	Div	nnual idend <sup>2</sup> (3)	Adjusted <u>Yield</u> (4)	Constant Growth DCF (5)
1	Alliant Energy	\$ 38.14	5.33%	\$	1.15	3.18%	8.51%
2	Amer. Elec. Power	\$ 42.83	4.39%	\$	1.56	3.80%	8.20%
3	Ameren Corp.	\$ 53.66	6.48%	\$	2.54	5.04%	11.52%
4	Consol. Edison	\$ 48.12	3.33%	\$	2.30	4.94%	8.27%
5	Dominion Resources	\$ 82.59	10.11%	\$	2.76	3.68%	13.79%
6	DTE	\$ 47.32	5.71%	\$	2.06	4.60%	10.32%
7	Duke Energy	\$ 25.45	5.74%	\$	1.28	5.32%	11.05%
8	Empire	\$ 24.35	3.00%	\$	1.28	5.41%	8.41%
9	Energy East Corp.	\$ 24.60	3.67%	\$	1.20	5.06%	8.72%
10	Entergy Corp.	\$ 92.69	9.01%	\$	2.16	2.54%	11.55%
11	FirstEnergy Corp.	\$ 60.24	7.29%	\$	1.80	3.21%	10.50%
12	G't Plains Energy	\$ 31.75	2.88%	\$	1.66	5.38%	8.26%
13	Hawaiian Elec.	\$ 27.10	4.39%	\$	1.24	4.78%	9.17%
14	IDACORP Inc.	\$ 38.31	5.00%	\$	1.20	3.29%	8.29%
15	MDU Resources	\$ 25.77	7.40%	\$	0.54	2.25%	9.65%
16	NiSource Inc.	\$ 24.03	3.41%	\$	0.92	3.96%	7.37%
17	Northeast Utilities	\$ 27.93	10.37%	\$	0.75	2.97%	13.34%
18	NSTAR	\$ 34.29	5.72%	\$	1.30	4.01%	9.73%
19	OGE Energy	\$ 39.37	5.67%	\$	1.36	3.65%	9.32%
20	Otter Tail Corp.	\$ 31.56	4.61%	\$	1.15	3.82%	8.43%
21	Pepco Holdings	\$ 26.03	6.97%	\$	1.04	4.27%	11.24%
22	Pinnacle West Capital	\$ 49.58	6.03%	\$	2.10	4.49%	10.52%
23	PNM Resources	\$ 30.73	9.27%	\$	0.88	3.13%	12.40%
24	PPL Corp.	\$ 35.77	10.50%	\$	1.10	3.40%	13.90%
25	Progress Energy	\$ 48.30	4.22%	\$	2.42	5.22%	9.44%
26	Puget Energy Inc.	\$ 24.91	4.89%	\$	1.00	4.21%	9.09%
27	SCANA Corp.	\$ 41.20	4.53%	\$	1.68	4.26%	8.80%
28	Sempra Energy	\$ 56.50	6.37%	\$	1.20	2.26%	8.63%
29	Southern Co.	\$ 36.57	4.79%	\$	1.55	4.45%	9.24%
30	TXU Corp.	\$ 55.27	11.87%	\$	1.74	3.52%	15.39%
31	Vectren	\$ 28.26	4.28%	\$	1.26	4.65%	8.93%
32	Wisconsin Energy	\$ 47.18	8.35%	\$	0.92	2.11%	10.47%
33	WPS Resources	\$ 53.77	4.72%	\$	2.30	4.48%	9.20%
34	Xcel Energy Inc.	\$ 23.19	5.64%	\$	0.8 <del>9</del>	4.06%	9.70%
35	Average	\$ 40.51	6.06%	\$	1.48	3.98%	10.0%

Sources:

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<sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006.
 <sup>2</sup> The Value Line Investment Survey; December 1, December 29, February 9, 2007.

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### Two-Stage Growth DCF Model (Gorman)

<u>Line</u>	Electric Utility	 /eek AVG <u>:k Price<sup>1</sup></u> (1)	nnual <u>idend<sup>2</sup></u> (3)	AVG (%) <u>Growth</u> (2)	GDP Growth <sup>3</sup> (4)	Two-Stage <u>Growth DCF</u> (5)
1	Alliant Energy	\$ 38.14	\$ 1.15	5.33%	5.10%	8.14%
2	Ameren Corp.	\$ 53.66	\$ 2.54	6.48%	5.10%	10.11%
3	DTE	\$ 47.32	\$ 2.06	5.71%	5.10%	9.57%
4	FirstEnergy Corp.	\$ 60.24	\$ 1.80	7.29%	5.10%	8.38%
5	IDACORP Inc.	\$ 38.31	\$ 1.20	5.00%	5.10%	8.21%
6	NiSource Inc.	\$ 24.03	\$ 0.92	3.41%	5.10%	8.65%
7	OGE Energy	\$ 39.37	\$ 1.36	5.67%	5.10%	8.64%
8	Pinnacle West Capital	\$ 49.58	\$ 2.10	6.03%	5.10%	9.50%
9	Puget Energy Inc.	\$ 24.91	\$ 1.00	4.89%	5.10%	9.07%
10	SCANA Corp.	\$ 41.20	\$ 1.68	4.53%	5.10%	9.08%
11	Southern Co.	\$ 36.57	\$ 1.55	4.79%	5.10%	9.29%
12	Wisconsin Energy	\$ 47.18	\$ 0.92	8.35%	5.10%	7.32%
13	Xcel Energy Inc.	\$ 23.19	\$ 0.89	5.64%	5.10%	9.03%
14	Average	\$ 40.29	\$ 1.48	5.63%	5.10%	8.8%

Sources:

<sup>3</sup> Blue Chip Economic Forecasts, October 10, 2006 at 15.

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<sup>&</sup>lt;sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006.

<sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey; September 1, September 29, November 10, 2006.

### Two-Stage Growth DCF Model (McShane)

<u>Line</u>	Electric Utility	eek AVG <u>k Price<sup>1</sup></u> (1)	nnual <u>idend<sup>2</sup></u> (3)	AVG (%) <u>Growth</u> (2)	GDP <u>Growth<sup>3</sup></u> (4)	Two-Stage <u>Growth DCF</u> (5)
1	Amer. Elec. Power	\$ 42.83	\$ 1.56	4.39%	5.10%	8.63%
2	Ameren Corp.	\$ 53.66	\$ 2.54	6.48%	5.10%	10.11%
3	Edison International	\$ 45.30	\$ 1.28	7.94%	5.10%	8.29%
4	Entergy Corp.	\$ 92.69	\$ 2.16	9.01%	5.10%	7.85%
5	Exelon	\$ 61.03	\$ 2.16	9.38%	5.10%	9.33%
6	FirstEnergy Corp.	\$ 60.24	\$ 1.80	7.29%	5.10%	8.38%
7	FPL Group	\$ 55.09	\$ 1.80	8.67%	5.10%	8.90%
8	G't Plains Energy	\$ 31.75	\$ 1.66	2.88%	5.10%	9.86%
9	PG&E	\$ 46.69	\$ 1.04	7.87%	5.10%	7.59%
10	Pinnacle West Capital	\$ 49.58	\$ 2.10	6.03%	5.10%	9.50%
11	PNM Resources	\$ 30.73	\$ 0.88	9.27%	5.10%	8.52%
12	PPL Corp.	\$ 35.77	\$ 1.10	10.50%	5.10%	8.96%
13	Sempra Energy	\$ 56.50	\$ 1.20	6.37%	5.10%	7.31%
14	Southern Co.	\$ 36.57	\$ 1.55	4.79%	5.10%	9.29%
15	TXU Corp.	\$ 55.27	\$ 1.74	11.87%	5.10%	9.27%
16	Wisconsin Energy	\$ 47.18	\$ 0.92	8.35%	5.10%	7.32%
17	Xcel Energy Inc.	\$ 23.19	\$ 0.89	5.64%	5.10%	9.03%
18	Average	\$ 48.48	\$ 1.55	7.46%	5.10%	8.7%

Sources:

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<sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006.

<sup>2</sup> The Value Line Investment Survey, September 1, September 29, November 10, 2006.

<sup>3</sup> Blue Chip Economic Forecasts, October 10, 2006 at 15.

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#### Two-Stage Growth DCF Model (Vander Weide)

<u>Line</u>	Electric Utility	/eek AVG <u>sk Price<sup>1</sup></u> (1)	nnual <u>vidend<sup>2</sup></u> (3)	AVG (%) <u>Growth</u> (2)	GDP <u>Growth<sup>3</sup></u> (4)	Two-Stage <u>Growth DCF</u> (5)
1	Alliant Energy	\$ 38.14	\$ 1,15	5.33%	5.10%	8.14%
2	Amer, Elec. Power	\$ 42.83	\$ 1.56	4.39%	5.10%	8.63%
3	Ameren Corp.	\$ 53.66	\$ 2.54	6.48%	5.10%	10.11%
4	Consol. Edison	\$ 48.12	\$ 2.30	3.33%	5.10%	9.53%
5	Dominion Resources	\$ 82.59	\$ 2.76	10.11%	5.10%	9.22%
6	DTE	\$ 47.32	\$ 2.06	5.71%	5.10%	9.57%
7	Duke Energy	\$ 25.45	\$ 1.28	5.74%	5.10%	10.26%
8	Empire	\$ 24.35	\$ 1.28	3.00%	5.10%	9.91%
9	Energy East Corp.	\$ 24.60	\$ 1.20	3.67%	5.10%	9.69%
10	Entergy Corp.	\$ 92.69	\$ 2.16	9.01%	5.10%	7.85%
11	FirstEnergy Corp.	\$ 60.24	\$ 1.80	7.29%	5.10%	8.38%
12	G't Plains Energy	\$ 31.75	\$ 1.66	2.88%	5.10%	9.86%
13	Hawaiian Elec.	\$ 27.10	\$ 1.24	4.39%	5.10%	9.54%
14	IDACORP Inc.	\$ 38.31	\$ 1.20	5.00%	5.10%	8.21%
15	MDU Resources	\$ 25.77	\$ 0.54	7.40%	5.10%	7.39%
16	NiSource Inc.	\$ 24.03	\$ 0.92	3.41%	5.10%	8.65%
17	Northeast Utilities	\$ 27.93	\$ 0.75	10.37%	5.10%	8.46%
18	NSTAR	\$ 34.29	\$ 1.30	5.72%	5.10%	8.99%
19	OGE Energy	\$ 39.37	\$ 1.36	5.67%	5.10%	8.64%
20	Otter Tail Corp.	\$ 31.56	\$ 1. <b>15</b>	4.61%	5.10%	8.67%
21	Pepco Holdings	\$ 26.03	\$ 1.04	6.97%	5.10%	9.42%
22	Pinnacle West Capital	\$ 49.58	\$ 2.10	6.03%	5.10%	9.50%
23	PNM Resources	\$ 30.73	\$ 0.88	9.27%	5.10%	8.52%
24	PPL Corp.	\$ 35.77	\$ 1.10	10.50%	5.10%	8.96%
25	Progress Energy	\$ 48.30	\$ 2,42	4.22%	5.10%	9.93%
26	Puget Energy Inc.	\$ 24.91	\$ 1.00	4.89%	5.10%	9.07%
27	SCANA Corp.	\$ 41.20	\$ 1.68	4.53%	5.10%	9.08%
28	Sempra Energy	\$ 56.50	\$ 1.20	6.37%	5.10%	7.31%
29	Southern Co.	\$ 36.57	\$ 1.55	4.79%	5.10%	9.29%
30	TXU Corp.	\$ 55.27	\$ 1.74	11.87%	5.10%	9.27%
31	Vectren	\$ 28.26	\$ 1.26	4.28%	5.10%	9.40%
32	Wisconsin Energy	\$ 47.18	\$ 0.92	8.35%	5.10%	7.32%
33	WPS Resources	\$ 53.77	\$ 2.30	4.72%	5.10%	9.31%
34	Xcel Energy Inc.	\$ 23.19	\$ 0.89	5.64%	5.10%	9.03%
35	Average	\$ 40.51	\$ 1.48	6.06%	5.10%	9.0%

Sources:

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<sup>&</sup>lt;sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006.

 <sup>&</sup>lt;sup>2</sup> The Value Line Investment Survey; September 1, September 29, November 10, 2006.
 <sup>3</sup> Blue Chip Economic Forecasts, October 10, 2006 at 15.

#### **Two-Stage Growth DCF Model (Combined)**

<u>Line</u>	Electric Utility	 eek AVG <u>*k Price<sup>1</sup></u> (1)	 nnual <u>idend<sup>2</sup></u> (3)	AVG (%) <u>Growth</u> (2)	GDP <u>Growth<sup>3</sup></u> (4)	Two-Stage <u>Growth DCF</u> (5)
1	Alliant Energy	\$ 38.14	\$ 1.15	5.33%	5.10%	8.14%
2	Amer. Elec. Power	\$ 42.83	\$ 1.56	4.39%	5.10%	8.63%
3	Ameren Corp.	\$ 53.66	\$ 2.54	6.48%	5.10%	10.11%
4	Consol. Edison	\$ 48.12	\$ 2.30	3.33%	5.10%	9.53%
5	Dominion Resources	\$ 82.59	\$ 2.76	10.11%	5.10%	9.22%
6	DTE	\$ 47.32	\$ 2.06	5.71%	5.10%	9.57%
7	Duke Energy	\$ 25.45	\$ 1.28	5.74%	5.10%	10.26%
8	Edison International	\$ 45.30	\$ 1.28	7.94%	5.10%	8.29%
9	Empire	\$ 24.35	\$ 1.28	3.00%	5.10%	9.91%
10	Energy East Corp.	\$ 24.60	\$ 1.20	3.67%	5.10%	9.69%
11	Entergy Corp.	\$ 92.69	\$ 2.16	9.01%	5.10%	7.85%
12	Exelon	\$ 61.03	\$ 2.16	9.38%	5.10%	9.33%
13	FirstEnergy Corp.	\$ 60.24	\$ 1.80	7.29%	5.10%	8.38%
14	FPL Group	\$ 55.09	\$ 1.80	8.67%	5.10%	8.90%
15	G't Plains Energy	\$ 31.75	\$ 1,66	2.88%	5.10%	9.86%
16	Hawaiian Elec.	\$ 27.10	\$ 1.24	4.39%	5.10%	9.54%
17	IDACORP Inc.	\$ 38.31	\$ 1.20	5.00%	5.10%	8.21%
18	MDU Resources	\$ 25.77	\$ 0.54	7.40%	5.10%	7.39%
19	NiSource Inc.	\$ 24.03	\$ 0.92	3.41%	5.10%	8.65%
20	Northeast Utilities	\$ 27.93	\$ 0.75	10.37%	5.10%	8.46%
21	NSTAR	\$ 34.29	\$ 1.30	5.72%	5.10%	8.99%
22	OGE Energy	\$ 39.37	\$ 1.36	5.67%	5.10%	8.64%
23	Otter Tail Corp.	\$ 31.56	\$ 1.15	4.61%	5.10%	8.67%
24	Pepco Holdings	\$ 26.03	\$ 1.04	6.97%	5.10%	9.42%
25	PG&E	\$ 46.69	\$ 1.04	7.87%	5.10%	7.59%
26	Pinnacle West Capital	\$ 49.58	\$ 2.10	6.03%	5.10%	9.50%
27	PNM Resources	\$ 30.73	\$ 0.88	9.27%	5.10%	8.52%
28	PPL Corp.	\$ 35.77	\$ 1.10	10.50%	5.10%	8.96%
29	Progress Energy	\$ 48.30	\$ 2.42	4.22%	5.10%	9.93%
30	Puget Energy Inc.	\$ 24.91	\$ 1.00	4.89%	5.10%	9.07%
31	SCANA Corp.	\$ 41.20	\$ 1.68	4.53%	5.10%	9.08%
32	Sempra Energy	\$ 56.50	\$ 1.20	6.37%	5.10%	7.31%
33	Southern Co.	\$ 36.57	\$ 1.55	4.79%	5.10%	9.29%
34	TXU Corp.	\$ 55.27	\$ 1.74	11.87%	5.10%	9.27%
35	Vectren	\$ 28.26	\$ 1.26	4.28%	5.10%	9.40%
36	Wisconsin Energy	\$ 47.18	\$ 0.92	8.35%	5.10%	7.32%
37	WPS Resources	\$ 53.77	\$ 2.30	4.72%	5.10%	9.31%
38	Xcel Energy Inc.	\$ 23.19	\$ 0.89	5.64%	5.10%	9.03%
39	Average	\$ 41.72	\$ 1.49	6.31%	5.10%	8.9%

Sources:

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<sup>2</sup> The Value Line Investment Survey; September 1, September 29, November 10, 2006.

<sup>3</sup> Blue Chip Economic Forecasts, October 10, 2006 at 15.

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<sup>&</sup>lt;sup>1</sup> http://moneycentral.msn.com, downloaded on November 13, 2006.

### **Treasury Bond Inflation-Adjusted Yields**

<u>Line</u>	<u>Date</u>	Treasury <u>Bond Yield<sup>1</sup></u> (1)	Projected Value Line <u>Inflation<sup>2</sup></u> (2)	Implied Real <u>Return</u> (3)
1	1986	7.78%	4.50%	3.28%
2	1987	8.59%	4.70%	3.89%
3	1988	8.96%	4.63%	4.33%
4	1989	8.45%	4.90%	3.55%
5	1990	8.61%	4.70%	3.91%
6	1991	8.14%	4.50%	3.64%
7	1992	7.67%	4.10%	3.57%
8	1993	6.59%	3.40%	3.19%
9	1994	7.37%	3.50%	3.87%
10	1995	6.88%	3.30%	3.58%
11	1996	6.71%	3.30%	3.41%
12	1997	6.61%	2.80%	3.81%
13	1998	5.58%	2.80%	2.78%
14	1999	5.87%	2.80%	3.07%
15	2000	5.94%	2.70%	3.24%
16	2001	5.49%	2.80%	2.69%
17	2002	5.42%	2.80%	2.62%
18	2003	5.02%	2.50%	2.52%
19	2004	5.05%	2.50%	2.55%
20	2005	4.65%	2.70%	1.95%
21	2006	5.05%	2.50%	2.55%
22	Average	6.69%	3.45%	3.24%
23	1980s	8.45%	4.68%	3.76%
24	1990s	7.00%	3.52%	3.48%
25	2000s	5.23%	2.64%	2.59%

Sources:

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<sup>1</sup> Economic Report of the President, January, 2001 and the St. Louis Federal Reserve Bank Website.

<sup>2</sup> Value Line Investment Survey, Various Issues.

#### **Composite Comparable Group**

		S&P Bond		Business Risk
Line	Electric Utility	Rating <sup>1</sup>	EEI Category <sup>2</sup>	Profile (Dec'06) <sup>3</sup>
	<u></u>	(1)	(2)	(3)
		• •		
1	Alliant Energy	BBB+	Regulated	5
2	Amer. Elec. Power	BBB	Mostly Regulated	5
3	Ameren Corp.	BBB+	Regulated	7
4	Consol, Edison	A	Regulated	2
5	Dominion Resources	BBB	Diversified	7
6	DTE	BBB	Mostly Regulated	6
7	Duke Energy	BBB	Diversified	6
8	Empire District	BBB-	Regulated	6
9	Energy East Corp.	BBB+	Regulated	3
10	Entergy Corp.	BBB	Mostly Regulated	6
11	FirstEnergy Corp.	BBB	Mostly Regulated	7
12	G't Plains Energy	BBB	Regulated	7 .
13	Hawaiian Elec.	BBB	Diversified	6
14	IDACORP Inc.	BBB+	Regulated	5
15	MDU Resources	BBB+	Diversified	N/A
16	NiSource Inc.	BBB	Mostly Regulated	4
17	Northeast Utilities	BBB	Mostly Regulated	4
18	NSTAR	A+	Regulated	1
19	OGE Energy	BBB+	Diversified	6
20	Otter Tail Corp.	BBB+	Mostly Regulated	8
21	Pepco Holdings	8BB+	Mostly Regulated	5
22	Pinnacle West Capital	BBB-	Regulated	6
23	PNM Resources	BBB	Mostly Regulated	6
24	PPL Corp.	BBB	Mostly Regulated	7
25	Progress Energy	BBB	Regulated	5
26	Puget Energy Inc.	BBB-	Regulated	4
27	SCANA Corp.	A-	Regulated	4
28	Sempra Energy	BBB+	Diversified	7
29	Southern Co.	А	Regulated	4
30	TXU Corp.	BBB-	Diversified	7
31	Vectren	A-	Mostly Regulated	4
32	Wisconsin Energy	BBB+	Regulated	5
33	WPS Resources	А	Diversified	5
34	Xcel Energy Inc.	BBB	Regulated	5
35	Average	BBB+	Mostly Regulated	5
36	AmerenUE	BBB+	Regulated	5

#### Source:

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Michael Gorman Surrebuttal Schedule MPG-3

<sup>&</sup>lt;sup>1</sup> Vander Weide Direct, Schedule JVW-1.

<sup>&</sup>lt;sup>2</sup>Edison Electric Institute, Rate Case Summary; Q4, 2006 Financial Update.

<sup>&</sup>lt;sup>3</sup> Standard & Poor's, U.S. utility and Power Companies, Stongest to Weakest.

Dember 28, 2006

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